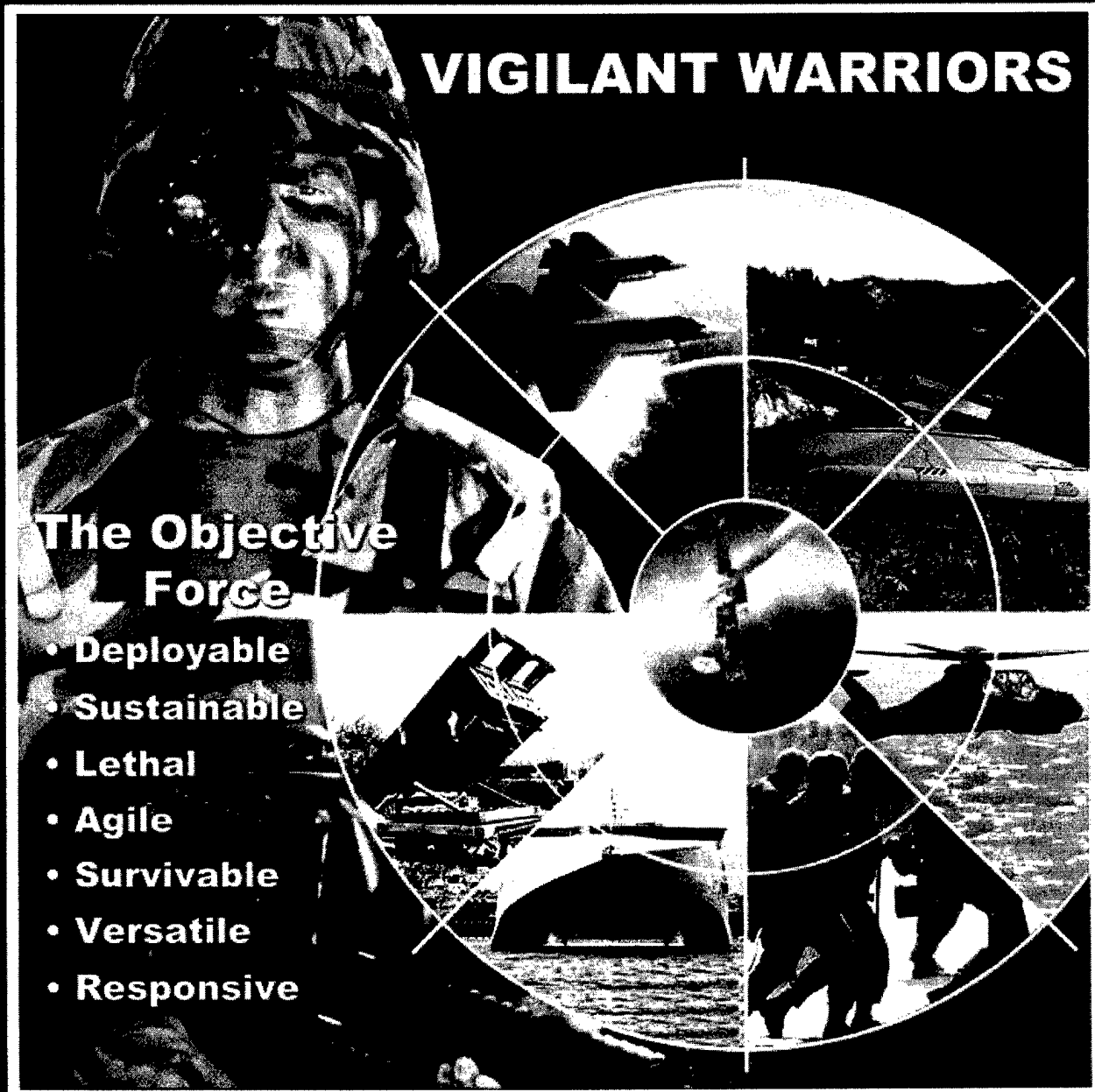


ARMY Transformation Wargame 2001

22-27 April 2001, U.S. Army War College, Carlisle Barracks, PA



VIGILANT WARRIORS

The Objective Force

- Deployable
- Sustainable
- Lethal
- Agile
- Survivable
- Versatile
- Responsive

*Soldiers on Point for the Nation . . . Persuasive in Peace . . .
... Invincible in War*



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Key Wargame 2001 Participants

Interagency

U.S. Department of State
U.S. Department of Transportation
U.S. Commission on National Security

Intelligence Agencies

Federal Bureau of Investigation
Central Intelligence Agency
Defense Intelligence Agency
National Security Agency
National Reconnaissance Office
National Air Intelligence Center
National Ground Intelligence Center
U.S. Marine Corps Intelligence Activity
U.S. Army Intelligence and Security Command

Commands

U.S. Joint Forces Command
U.S. Space Command
U.S. Special Operations Command
U.S. Central Command

Services

Department of the Army
Department of the Navy
Headquarters Marine Corps
Department of the Air Force
Headquarters Coast Guard

Army Major Commands

Army Forces Command
Army Training and Doctrine Command
Army Materiel Command
Army Space and Missile Defense Command
Army Medical Department Center and School

Study, Research and Analysis Agencies

Army Science Board
Army Research Laboratory
Center for Naval Analysis
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Foreign Armies

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Preface

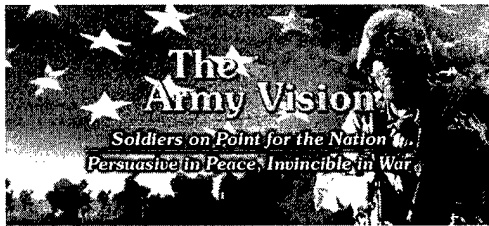
The United States Army has adopted a revolutionary transformation strategy to field a future Objective Force that is strategically responsive and dominant across the full spectrum of military operations. As an integral part of this transformation effort, and as an outgrowth of the Army After Next project, The Army Transformation Wargame series capitalizes on over five years of study, wargaming, and analysis of concepts and capabilities beyond 2010. In 2000, the first Army Transformation Wargame showcased The Army Objective Force as a highly deployable, general-purpose force that provided enhanced combat power to meet the challenges of the future strategic and operational environments.

The Army recently conducted its second Army Transformation Wargame, "Vigilant Warriors 01" at Carlisle Barracks, Pennsylvania, from 22-27 April 2001. In this wargame, the depiction of a future major theater war served to illuminate, at a significant level of resolution, the emerging Objective Force concepts and capabilities needed to achieve strategic responsiveness and full-spectrum dominance.

This initial report provides a preview of the issues, insights, and conclusions derived during the wargame. It will be followed by a more detailed analysis highlighting the conduct of the wargame and more important, what was learned about the Objective Force. Ultimately, the lessons learned from Vigilant Warriors 01 support the intellectual underpinnings that frame the U.S. Army's importance to the Nation's security and interests.

Vigilant Warriors 01 and the Objective Force

The overarching intent of Vigilant Warriors was to examine and comprehend The Army's future Objective Force and the environment it will operate in.



Through the on-going process of Transformation, and guided by The Army Vision, The Army is forging a future land force that is strategically responsive and dominant across the spectrum of military operations. The Vision describes the central characteristics and capabilities necessary for The Army to apply time-tested military principles to the dynamic conditions of this century's strategic and operational environments. As in the past, the Objective Force fights as part of a joint

and often a coalition force. Its ultimate measure of success is its contribution to the joint and combined campaign.

Findings

The prime contribution of the Objective Force to land warfare was clearly evident during the week-long Army Transformation Wargame. **The game demonstrated the utility of a general-purpose Objective Force optimized for full-spectrum dominance.** The Objective Force, designed with the striking power, staying power, and agility to win major theater wars, is capable of applying selective force or threatening the use of force throughout the spectrum of conflict. The insights and conclusions derived from this game reinforced the collective findings of over five years of study, wargaming, and analysis of future warfare beyond 2010.

Using the characteristics of The Army Vision as a measure of merit, Objective Force capabilities were verified during The Army Transformation Wargame.

Objective Force Capabilities

Responsiveness.

- The Objective Force provides the capability for early and decisive operations that expand National Command Authority options while at the same time reducing an adversary's ability to respond.
- Strategic responsiveness is more than rapid deployment. Responsiveness has qualities of time, distance, and sustained momentum. It includes the ability to capitalize on the positioning of forward-deployed forces and supplies along with strategic lift. It demands close, continuous coordination between Army commanders and joint and interagency leaders and decision-makers.

Deployability.

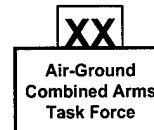
- Objective Force can simultaneously deploy and employ in combat-configured force packages, exploiting multiple air/ground points of entry into a theater of war, greatly complicating an adversary's ability to deny access to the theater.



- The wargame highlighted the critical importance of shallow draft high-speed ships, both as a strategic deployment enabler and as an intra-theater movement enabler (theater support vessel).

Agility.

- The mental and physical ability to rapidly and repeatedly shift its operational orientation enables the Objective Force to seize and hold the initiative.
- The wargame demonstrated the efficacy of a command and control echelon between corps and brigade. While Objective Force divisions may be vastly different from current divisions, the need for a division echelon is more important in the future operational environment.
- Transformation of Army training (institutional, unit, Combat Training Center, self and leader development) is required to achieve Objective Force agility.
- The game clearly demonstrated the need for the increased capabilities for command and control; intelligence surveillance and reconnaissance (ISR); fires and maneuver at the division, corps and army echelons, as described in the Objective Force concept.

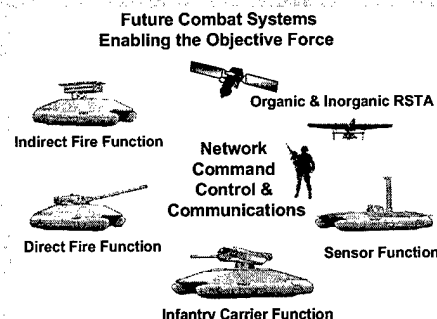


Versatility.

- A more robust combined arms organization, together with access to joint enablers, allows the Objective Force to rapidly transition from deployment to employment and between operations, dominating the adversary in all environments and terrain.
- Capabilities such as the joint transport rotorcraft (JTR) and the advanced theater transport (ATT) proved to be critical enablers of operational maneuver and vertical envelopment, as well as theater sustainment.

Lethality.

- The Objective Force demonstrates overmatching combat power by acquiring, targeting, and destroying enemy forces through a variety of organic means and by leveraging joint and coalition assets.
- The wargame confirmed the need for Objective Force battalions and brigades equipped with longer range lethal and non-lethal attack systems along with the enhanced Future Combat Systems' (FCS) C4ISR capabilities.
- Embedded and organic ISR capabilities increase the lethal battlespace of each echelon.



Survivability.

- Key technologies in multifunctional sensors, situational understanding, greater range stand-off, increased battlespace awareness, and detection and hit avoidance provide the Objective Force with the capability to see first, understand first, act first, and finish decisively, greatly increasing its survivability.

Sustainability.

- Objective Force operations are characterized by reduced sustainment demands and therefore a reduced theater logistics footprint; however, they are also characterized by increases in velocity and tempo as well as increased operational distances that must be supported. Therefore, Army and joint sustainment capabilities, from the strategic to the tactical levels, must be transformed to the Objective Force characteristics in order to realize the warfighting potential of the force as a whole.
- The Objective Force requires greater integration of operations and logistics planning and execution.
- Aerial sustainment is a critical enabler of Objective Force agility, versatility, and sustainability.

The conclusions of the wargame consistently bear out the critical importance of strategic and intra-theater lift enablers for deployment, operational maneuver, and sustainment of the joint Objective Force. The command and control complexities of joint and coalition operations, expanded noncontiguous battlespace, and simultaneity of air-ground operations strongly support the utility of the brigade-division-corps-army organizational construct, with new concepts and capabilities for each echelon.

Army Transformation

Army Transformation combines **full-spectrum Objective Forces**, modernized and recapitalized Legacy Forces, and Interim Forces for full spectrum contingencies to assure the United States land combat dominance.

Despite The Army's increased involvement in smaller-scale contingencies during the past few years, winning major theater wars continues to represent the most difficult military challenge to the United States in the twenty-first century. To satisfy its unique service obligations under Title 10 USC, The Army must be capable of operating across the full spectrum of military operations, and be able to shift between them without warning.

The U.S. military's central contribution to national defense resides in its ability to deter war, and if deterrence fails, to win rapidly and decisively. When The Army

deploys, every element in the warfighting formation will be capable of generating combat power and contributing decisively to the fight. It will retain today's light force deployability while providing it the lethality and tactical mobility for decisive outcomes that our heavy forces currently enjoy. The Army will retain heavy force lethality through overmatch while giving it deployability and employability in areas currently accessible only by light forces. As technology allows, the distinction between heavy and light forces will begin to be erased.

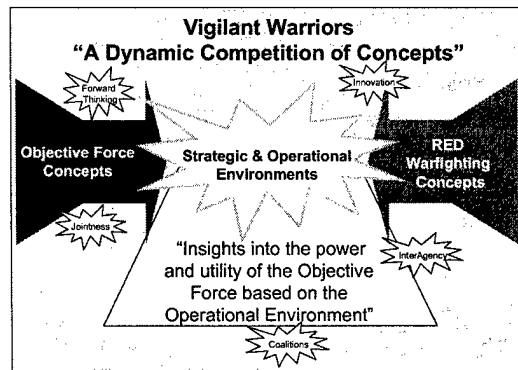
The Army Transformation seeks to produce a general-purpose Objective Force capable of meeting all these operational demands through an operational and organizational concept that reconciles the unchanging nature of war and the changing conduct of war. The concept recognizes that soldiers and leaders, enabled by technology, remain

the foundations of The Army's ability to fight and win wars decisively.

In addition to its inherent capability to conduct ground operations, the Objective Force depends upon, and contributes to the operations of other services, interagency functions and the overall capability of the joint/combined force. The examination of future strategic requirements conducted in this wargame confirms that landpower remains indispensable to decisive joint operations.

Vigilant Warriors 01

Vigilant Warriors 01 was the second iteration of a multi-year wargaming effort designed to permit The Army to explore key operational and organizational concepts and technology enablers for the Objective Force. Through the dynamics of a projected future setting, a compelling scenario, and a diverse team of multi-service, interagency, and multinational players, the wargame portrayed a microcosm of future major theater war. In so doing, the game provided a competitive clash of concepts – Objective Force concepts against sophisticated adversary warfighting concepts and capabilities contrived to offset U.S. technological advantages.



Theater of War



Wargame Scenario

Set in 2015 against a fictional but plausible background of future political and demographic changes, the wargame scenario entailed a major theater war in which friendly forces confronted an aggressive adversarial federation of states threatening regional stability over access to Tigris-Euphrates water rights and motivated by the desire for regional hegemony. The conflict immediately threatened alliances, freedom of navigation in the Persian Gulf and Suez Canal, and western access to oil and free trade. The opposing force was a free-thinking and technically competent adversary possessing powerful ground forces, able to threaten and conduct out-of-region attacks including the use of weapons of mass effects. It was also capable of conducting complex and innovative offensive and defensive operations employing a variety of conventional and asymmetric means.

Operational Environment

The Operational Environment portrayed in this wargame presented a complex and dangerous operational setting involving an emerging regional power threatening U.S.

ARMY Transformation
Wargame 2001

interests. It highlighted urban and other complex terrain, resource scarcity, increased influence of non-government and private voluntary organizations, and the complexity of coalition operations. The adversary employed high-end, niche technology to complement low-tech approaches at all levels of conflict. To mitigate the possibility of U.S. intervention, the emerging power used all of its instruments of national power, along with terrorism and the threat of weapons of mass destruction, to thwart direct U.S. involvement.

Operational Environment

This Crisis Environment Highlights:

- High potential for full spectrum operations, an unpredictable deployment setting and...a broad and complex range of operating environments...
- ...and provides an adversary that:
 - Has a modernized military and is a major regional competitor.
 - Knows his opponent and has prepared for the encounter.
 - Has a formidable anti-access strategy and capability.
 - Has complemented conventional capability with effective asymmetric doctrine and capabilities.
 - Has amassed sufficient mass and technology to inflict highly visible and embarrassing losses on an unprepared foe!

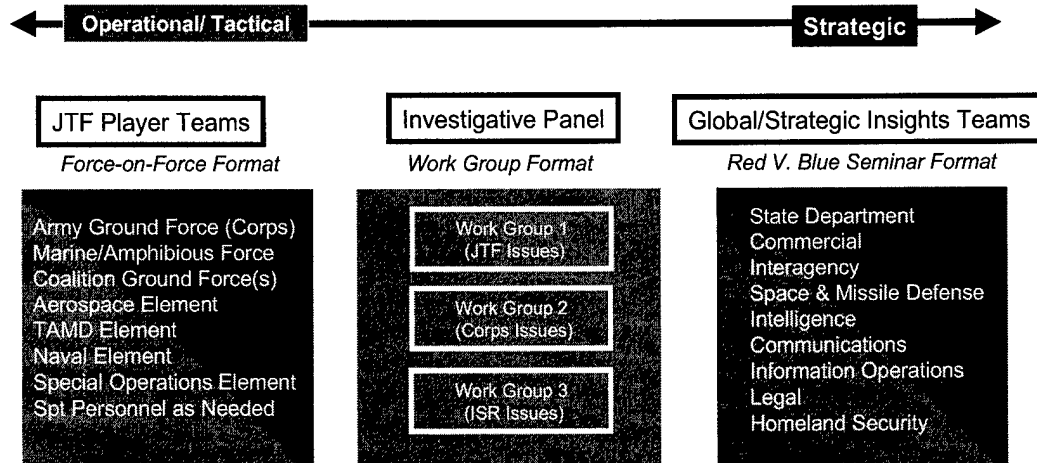
The adversary designed their operational forces to negate U.S. strengths while exploiting U.S. vulnerabilities. Such tactics included strategic deterrence and preclusion, access limitation, and operational shielding of forces from precision attack. Significantly, the adversary adopted a 'web-like' concept of operations that sought to mitigate the vulnerability of its decisive points and centers of gravity. Tactically, the adversary's objective centered on reconnaissance and strike operations, aggressive defenses in complex terrain, widely dispersed defensive areas, and distributed operations. The adversary complemented conventional land and air attacks with precision fires, relying heavily

on cruise and theater ballistic missile strikes, special operations forces (SOF) attacks, and offensive air defense strikes against U.S. forces. A comprehensive deception plan incorporated sophisticated decoys, spoofing, and other creative methods to counter American ISR, and precision engagement systems. The adversary's goal was to systematically exhaust U.S. forces and American resolve in order to achieve their favorable end-state—strategic victory through military stalemate.

Wargame Organization

Vigilant Warriors 01 was designed to examine issues ranging from the higher tactical level of war to the strategic level of war. A series of discrete combat vignettes examined Objective Force operations across a range of requirements including crisis response/entry operations, decisive operations, and transition to post-conflict operations. At the operational/tactical levels, two teams represented an adversary's military command and a 2015 Objective Force corps. During the game, this corps functioned as a combined/joint task force (CJTF), a combined joint force land component command (CJFLCC), and as an operational headquarters commanding Army subordinate division task forces. This Objective Force corps combined objective, legacy, and interim subordinate elements. It was supported by national, theater, and coalition air, maritime, amphibious, and space assets. Its objective capabilities provided an unprecedented ability to deploy rapidly, employ simultaneously, and conduct high-tempo operational maneuver, all enabled by significantly enhanced C4ISR capabilities.

Wargaming the Levels of War



A four-star numbered army headquarters comprised the nucleus of the theater of war CJTF formed to deal with the crisis. This allowed an examination of an army headquarters as the CJTF, the CJFLCC, and as the Army Service Component Command (ASCC) responsible for Title 10 support of Army and joint forces.

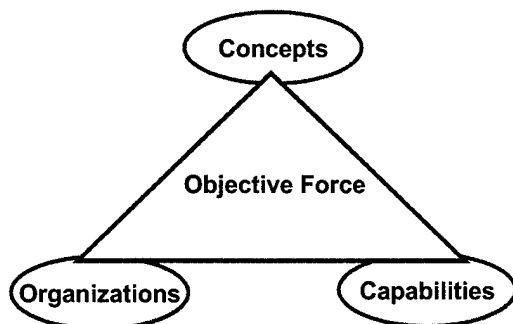
At the global/strategic level, a second pair of teams wargamed the interaction of opposing strategic intentions and decisions, the effect of strategic and operational asymmetries, and their impact on the friendly/adversary operational/tactical fight. Teams examined issues ranging from coalition establishment and maintenance to the assuring of Blue access despite adversary anti-access efforts, the impact of adversary operations against U.S. and coalition partners' homelands, and other aspects of asymmetric warfare. In addition, the global/strategic teams investigated the growing impact of commercial support on future warfare military operations, as well as space competition, force projection and sustainment, information operations, and other aspects of the strategic environment.

A third panel consisting of senior leaders, functional experts, and force developers investigated specific issues concerning Objective Force capabilities and design issues. Three teams focused respectively on issues concerning a CJTF, corps capabilities, and ISR requirements.

Study and Research Focus Areas

The wargame, fully embedded in Joint Vision 2020 and The Army Vision, examined key concepts and capabilities essential to the development of an Objective Force. The specific study topics follow:

- Strategic Responsiveness
- Full-spectrum Dominance
- Objective Force Capabilities
- Concepts and Doctrine
- Joint Interdependence/Joint Enablers
- Multinational Operations
- Battle Command, Leadership, Training, and Soldiers



Vigilant Warriors resulted in a greater understanding of Objective Force concepts, capabilities, and organizations.

Joint Campaign

During the wargame, in linking operational campaigns to theater strategy, the joint force commander took a holistic view of the conflict in focusing combat power. In both small-scale contingencies and major theater war, establishing early, sustained control of the air, land, sea, space, and information domains is critical.

Accordingly, the joint force commander sought to:

- Enter the conflict on his terms and immediately seize the initiative.
- Build momentum by integrating joint interdiction, strike, and maneuver to overwhelm the enemy.
- Achieve decision early through rapid and sustained operations.

The wargame illuminated that these goals are achieved when the commander has access to all joint capabilities from the onset of the campaign. An integrated joint force, with ground, sea, and air components optimized for all points along

the spectrum of conflict, ensures the joint force commander's ability to employ multidimensional forces and capabilities against the enemy at any time during the campaign. In contrast, a one dimensional approach leaves the initiative with the adversary allowing him to adopt other options.

Key to decisive land operations is the ability to focus on multiple objectives—decisive points and centers of gravity—against which to apply decisive combat power during battles and engagements. In the game, decisive points and centers of gravity included critical locations and terrain, battle command and sustainment infrastructures, freedom of action, and national will. Because of their complexity and often fleeting nature, they are difficult to identify, decisively engage, or defeat.

The wargame demonstrated that a **multi-dimensional approach** was the most effective way to defeat decisive points and centers of gravity. Success of the joint campaign was achieved through simultaneous operations directed at these key objectives while fixing other less relevant enemy forces, thereby presenting the enemy with multiple dilemmas. By attacking from many locations and directions, at unexpected times, the Objective Force, as a part of the joint and coalition team, closed off the enemy's options and accelerated his defeat.

Objective Force Corps

The wargame focused on the operational and tactical challenges confronting an Objective Force corps. In addition to managing its own organic and attached

formations as a corps-level task force, the corps was required to serve as:

- A CJTF responsible for integrating U.S. and coalition air, land, sea, and space assets.
- A joint/combined land component command responsible for controlling and sustaining multiservice and coalition ground forces.

In these roles, the corps planned and executed simultaneous joint and combined operations at a high tempo across an extended area of operations.

In its roles as operational headquarters, CJTF, and CJFLCC during the wargame, the corps span of control was increased as forces arrived, challenging its abilities to command and support diverse organizations over operational distances.

X Corps Span of Control

5 Army Divisions and a Marine Expeditionary Force*

Maneuver Brigade Equivalents.....	18
Maneuver Support and Sustainment Brigade Equivalents	26
USMC Brigade Equivalents	8 *
Coalition Brigade Equivalents	5

*X Corps as JTF or JFLCC

The highly tailorable Objective Force corps task force, by virtue of its rapid deployment and entry, initiated ground combat operations virtually on arrival of its lead elements and concurrent with continued force deployments. The success of these simultaneous deployment and employment operations allowed the corps to transition rapidly and without pause to

decisive operations, achieve its operational objectives, and prepare to transition to post-conflict operations. To accomplish these diverse and demanding tasks, the corps was required to mount a multidimensional campaign encompassing concurrent land, sea, air, and space operations.

Objective Forces corps operations portrayed in this wargame validated **The Army's rules of thumb— emphasis on winning on the offense, initiating combat at times and places of our choosing, gaining the initiative and never surrendering it, building momentum quickly, and finally, winning decisively.**

Division Air-Ground Combined Arms Task Force

Objective brigades and supporting formations were grouped into rapidly retailorable divisional air-ground combined arms task forces, thereby enabling the corps to manage its ground combat assets. Each division was capable of controlling a varying number of brigades and supporting units, and of applying the full spectrum of supporting joint theater, national, and coalition assets from reconnaissance, surveillance, and target acquisition to air, naval, and surface fires. Logistical sustainment across the rapidly enlarging battle area was managed through an innovative area support system based on multifunctional Expeditionary Support Forces. These forces used both air and land transportation systems and were linked to supported combat forces by an internetted and redundant C4ISR system. Objective Divisions possessed

inherent command, control, and communications, and lift capability to conduct decisive battalion sized vertical maneuver operations, with the Objective Force Corps providing ISR, attack aviation, and long range fire support.

Together, these capabilities allowed the corps to focus overwhelming combat power over hundreds of kilometers against widely separated portions of adversary forces, defeating them in detail without possibility of mutual support.

Combined Arms Battalions and Brigades

The basic fighting organization within the Objective Force is the combat battalion. Inherently combined arms with organic capabilities for direct and indirect fires, air defense, mobility support, command control communications, and advanced ISR, combat battalions will conduct tactical engagements. These organizations develop the situation out of contact using a combination of mounted and dismounted capabilities, balancing tactical stand-off, and close combat assault to close with and destroy enemy forces in all types of terrain.

Brigades direct battalions in simultaneous, often non-contiguous engagements and orchestrate support from division and higher echelons with respect to long-range fires, extended ISR, and other enablers to maintain lethal overmatch throughout the engagement and ensure freedom of action, rapid mission success, and smooth transition to the next engagement.

Exploiting a layered constellation of advanced sensors, target acquisition, and command and control enablers, Objective Force units exploit the quality of firsts:

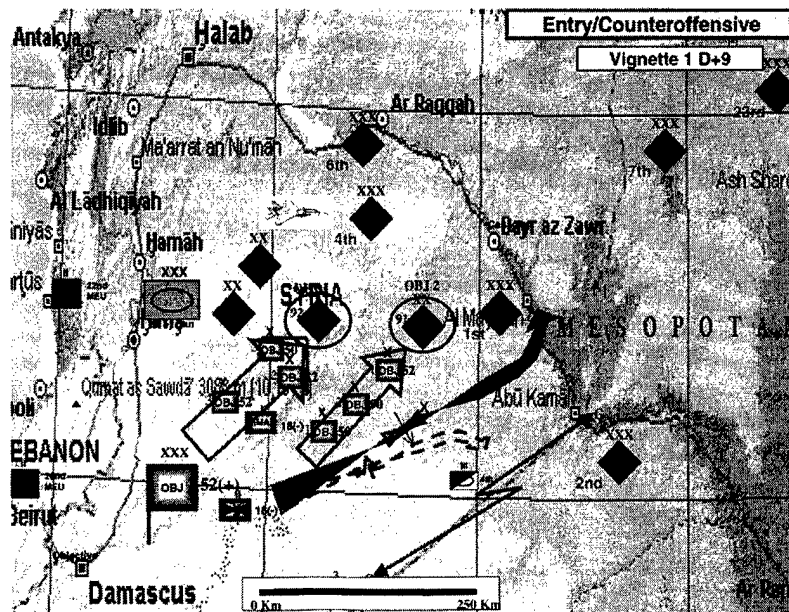
- **See First.** See/sense the entire environment before and more clearly than the enemy.
- **Understand First.** Rapidly process and distribute knowledge; identify a pattern and/or critical elements; understand significance of dispositions, intent, etc.; while denying same knowledge to the enemy.
- **Act First.** Retain freedom of action to shoot, move, and re-engage while denying the enemy the same freedom to act or even to respond effectively.
- **Finish Decisively.** Destroy enemy in detail through mounted and dismounted assault.

Wargame Summary

Scenario segments or vignettes were used to permit a full scope examination of theater operations from entry to war termination. Free play occurred in the context of three successive vignettes, each focused on a different phase of the conflict. While discontinuous, the vignettes were carefully constructed to provide logically successive planning points for friendly and adversary player teams.

Vignette 1: Crisis Response/Entry Operations

Vignette 1 opened at D+9 with the adversary's offensive against its neighbor still in progress. Early arriving Blue forces were required simultaneously to assist defending indigenous forces in blunting the adversary's attack; to begin the process of dismantling the adversary's integrated fires, air defense, and C4ISR systems; and to



create the necessary maneuver space to launch decisive operations while protecting continuing theater force deployments. SOF, in position with indigenous forces, provided a critical link to joint intelligence, air, and fires.

The speed with which the Objective corps was able to assemble a robust combined arms force surprised the adversary and enabled Blue to attack and destroy a major segment of the adversary's force while still in movement and before it could assume a protected posture. Simultaneously, Marine Corps expeditionary units seized key ports and vital littoral terrain, depriving the adversary of a key strategic objective.

Insights:

Strategic Responsiveness:

- The transformation of Army responsiveness capabilities, from today to the goals in The Army Vision, requires parallel transformation efforts by the other Services, the joint force, and interagencies.

- Response options enabled more flexible deterrent options, integration with multinational forces, rapid establishment of a coalition, and access to the region. The game illuminated ground forces key role in establishing alliances, operating with foreign armies, and rapid establishment of coalitions.
- The Objective Force, as part of a joint force, expands National Command Authority response options.
- SOF enabled indigenous forces to use joint intelligence, air, and fires and assisted in coordinating operations with Blue forces. SOF helped create the conditions for immediate employment of arriving forces.
- A demonstrated capability to deploy faster has a deterrent value; it also closes off an adversary's options sooner (risk of escalation).
- Relationships with allies and coalition partners must be established before the crisis and maintained through engagement activities.

Force Projection and Entry Operations:

- Entry operations are inherently joint operational events that set conditions for decisive operations and contribute to achieving the theater end-state; they must meet the CINC's requirements for establishing the theater infrastructure for sustained operations. When possible, entry should be conducted under permissive conditions; however, The Army must continue to be capable of conducting entry operations under semi-permissive or non-permissive conditions. At the operational level, the larger multidimensional context of entry operations includes land and sea delivery means complemented by airborne & air assault capabilities.
- Entry operations are conducted in the context of simultaneous deployment and employment; they must overcome an adversary's anti-access capabilities. Future entry operations will seek to reduce the early requirement for lodgements, orienting directly on enemy forces and decisive points. This demands a capability to enter with combined arms combat formations that do not require Air Points of Departure (APODs) and Sea Points of Departure (SPODs) for entry and that can go directly into action on arrival.
- The rapid strategic deployment of the Objective Force enables early operational maneuver. The simultaneous deployment and employment of combat-configured Objective Forces enable it to fight on arrival.
- Advanced sealift and airlift capability investments are required now. These include: shallow-draft high-speed ship (vital future capability), advanced theater transport, and joint transport rotorcraft.
- The deployment sequence of these forces requires integrated force packages, which balance combat and support units with tactical and theater-opening enablers.
- Pre-positioning of equipment and forward stationing of forces are still important.
- Force projection and entry-operations planning and execution must be integrated more than ever before.
- Early decisive effects depend on—
 - Force packaging-the development and deployment of formations capable of sustained combat are keys to early operational success.
 - The ability of all Army units to conduct **en route mission planning and rehearsals** during land, sea, and air movements similar to how airborne and SOF do today.
 - Reach-back capability to CONUS-based analysis centers providing real-time information to deploying units. Continuous information support from CONUS lowers unit footprints in theater.
 - The integrated application of joint capabilities to include C4ISR, fires, and maneuver to achieve desired effects.
 - Balanced integration of joint capabilities in deployment sequence—tailor and sequence the deployment to achieve the maximum effect.
- Operational success depends on the cumulative impact of the joint effects applied to exploit opportunities early in the campaign, not simply on “force ratios” as we know them today.

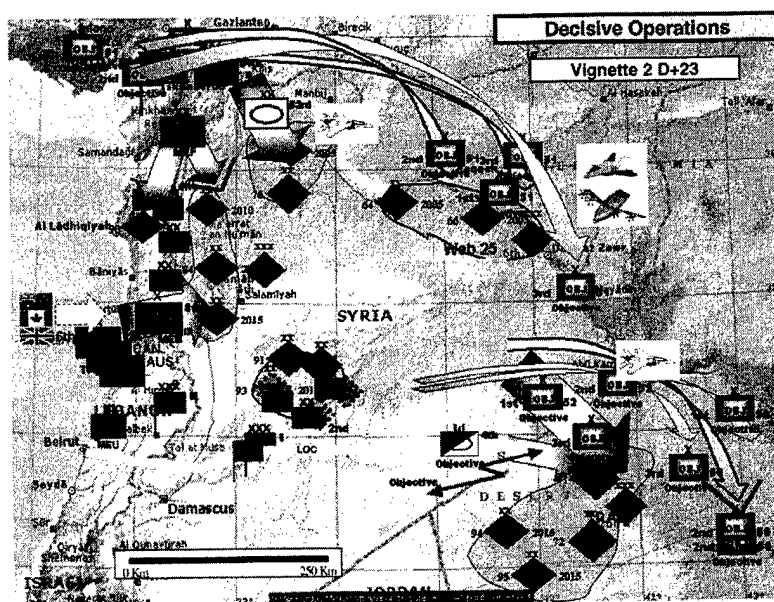
Assured Access versus Anti-Access/Limited Access

- An assured access campaign plan for joint and coalition forces is required to enable force projection, entry, shaping, and decisive operations.
- The ability to bypass major ports and airfields is critical for entry in an anti-access environment.
- The use of shallow-draft high-speed ships is required for entry into multiple austere locations.
- Joint force protection measures (such as theater air and missile defense and nuclear, biological, and chemical defense) are key enablers for opening the theater.
- Assured access is enduring throughout the campaign requiring Objective Force capabilities.

Vignette 2: Decisive Operations

Vignette 2 began at D+23 with the adversary having transitioned to the defense of conquered territories. Early achievement of major lodgments on both flanks of the adversary's attack, together with significant degradation of the adversary's integrated air defenses, fires, and C4ISR, permitted Blue to strike deep into the adversary's operational rear along two widely separated air/ground axes, opening the way to final achievement of the operational objectives of the CJTF.

Arrival in theater of interim and legacy formations, as well as coalition contributions, enabled Blue to transition rapidly to decisive operations while continuing to destroy or neutralize residual adversary forces bypassed by Blue's initial offensive operations. Meanwhile, expansion and thickening of Blue's theater air missile defense umbrella and release of indigenous forces for counter-SOF operations materially increased the security of later arriving coalition forces.



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Insights:

Joint Interdependence:

- Sufficient organic and embedded C4ISR assets at all echelons are required; they must remain combat effective in a degraded environment.
- Many key Army future capabilities (C4ISR, information operations [IO], fires, logistics) are inherently tied to joint capabilities. Future concepts and capabilities must be developed in this context.
- "Joint Objective Force" concepts which support Joint Vision 2020 are necessary to focus and frame Joint Transformation.
- Joint C4ISR capabilities (beyond today) are a prerequisite for achieving Objective Force capabilities.
- The Objective Force needs an embedded, advanced IO capability.

Operational Movement and Maneuver:

- The Objective Force capability for operational maneuver (air and ground) enables decisive operations at extended campaign depths and with increased tempo.
- Intra-theater lift assets (ATT, JTR) for combat units and sustainment are essential enablers.
- The air dimension provides the Objective Force the ability to finish one fight, then rapidly maneuver for the next mission.
- Precision maneuver—supported by fires—enables the Objective Force to initiate combat on its own terms at a time and place of its choosing, gain the

initiative and never surrender it, build momentum quickly and win decisively.

- Joint planning in support of operational maneuver is key:
 - The joint force has to be as agile as the Objective Force.
 - Planning agility/collaboration and execution capability must match platform agility and tempo of battle.
 - Battlespace management challenges current Army airspace command and control and air tasking order processes.
 - Battlespace management challenge (in three dimensions) requires joint structure, connectivity, and perspective.

Echelons:

- Complexities and interdependence of joint operations clearly support the need for Army command and control echelons above the brigade (division, corps, and ASCC). Army, corps, and division headquarters are needed to establish manageable spans of control. Span of control must take into account numerous factors, including the number of subordinate units, size of the area of operations, operational tempo, nature and number of concurrent operations—land, air, naval, space, special operations, etc.
- Considering the complexities of joint and coalition operations, expanded noncontiguous battlespace, and simultaneity of air-ground operations, the game examined the concept of a corps headquarters serving as Joint

headquarters with the following insights:

- The corps can be a joint task force (JTF) or a joint force land component command (JFLCC), but not both simultaneously.
- The corps can be JFLCC and effectively command its subordinate Army units.
- The corps cannot fulfill the role of JTF, JFLCC, nor command its own elements simultaneously, in a major theater war context.

Homeland Security and Coalition Concerns:

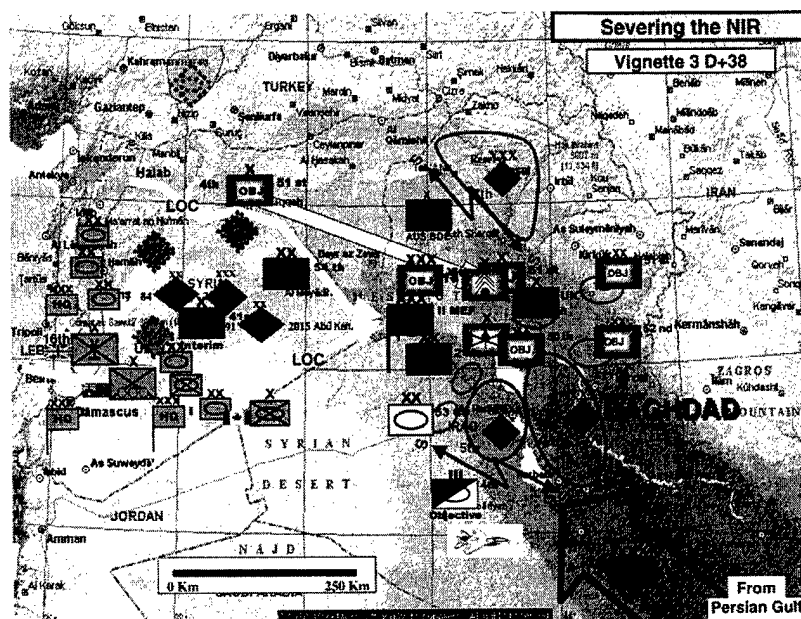
- The Army plays an important role in homeland security and defense through the full range of capabilities, including national and theater missile defense and counterterrorism.
- Competing demands for major theater war and homeland security must be dealt with simultaneously.

- Coalition risk (vice contribution) may dictate terms of participation. Coalition homeland security is part of the challenge.
- Rapid joint force projection requires early coalition building (during both engagement and crisis response).

Vignette 3: Decisive Operations/ Transition to Post-Conflict

Vignette 3 began at D+38 with Blue ground forces poised to strike deep into the adversary's homeland, isolate its capital, and cordon its frontier to prevent reinforcement by the adversary's federation partner.

Although deprived of freedom of maneuver and external support and sustainment, locally dangerous forces remained scattered throughout the area of operations, most in fortified urban enclaves. While incapable of major offensive operations, these residual forces



ARMY Transformation
Wargame 2001

posed a persistent hazard to Blue's lines of communication, and their elimination or suppression would be a necessary precondition to conflict termination.

Insights:

Force Sustainment:

- The sustainment time/distance situation becomes significantly more difficult with major implications on sustainment in an expanded battlespace. Force dispersion, operational tempo, and noncontiguous operations all add to the difficulty of force sustainment.
- Aerial support is essential to sustain Objective Force agility and mobility.
- Operational and sustainment planning requires greater integration, more than ever before.
- Reduced sustainment demand is critical to achieving a smaller theater sustainment footprint. However, the requirement to sustain increased velocity and tempo offsets some of the benefits of demand reduction.
- In order to meet the supply and distribution requirements of all forces (Legacy, Interim, Objective, Coalition, and Joint), a comprehensive and integrated approach to logistics management is imperative.
- The increasing distances between noncontiguous units in an expanding battlespace necessitate improved methods for protecting and securing sustainment forces.
- Maneuver sustainment is an operational task.
 - The conduct of maneuver sustainment is inherently ISR intensive, and its success requires

adequate allocation and application of ISR assets to protect moving entities transiting a noncontiguous battlespace.

- The Objective Force must have the means to shift lines of communication with the same agility as shifting the main effort, including the use of airpower for sustainment.

Campaigning Qualities:

- Objective Force capabilities change the dynamics of campaigning in the following ways:
 - Created a new operational paradigm in the way it simultaneously deploys and fights.
 - Deployed combat-configured units-soldiers and equipment.
 - Used multiple ports of entry.
 - Conducted offensive operations during force flow.
 - Dictated tempo of operations, not merely responding to enemy actions.
 - Employed combined arms air-ground task forces to set the conditions for defeat.
 - Demonstrated a capability of unprecedented sustainability over greater distances than current Legacy Forces.
- Defeating sophisticated enemies requires decisive campaigns, not just battles.
- Objective Force concepts and capabilities enable the dislocation, disruption, and disintegration as well as destruction of the enemy.

- Dealing with urban areas requires a deliberate approach to preclude loss of tempo.
- The Objective Force requires an integrated, and joint ISR system providing precise multidisciplined collection, processing, analysis and presentation at each echelon. A robust, echeloned approach employing a balance between reach-back and organic capabilities is essential, given the volume of information, differing unit requirements.
- Enhanced ISR capabilities are critical when operating against an adaptive, thinking opponent, who hugs the environment, and is adept at deception. There is no substitute for quality multi-disciplined surveillance and reconnaissance from trained, digitally enabled troops in contact, who can, if necessary, engage, forcing the enemy to reveal his intentions.
- General-purpose, full-spectrum forces have utility throughout the campaign.
- The wargame's coverage of entry, decisive, and post conflict operations emphasized the importance of transitions in operational and tactical situations, e.g. go from the offense to defense and back to offense; projecting power through multiple airheads and beachheads, and transitioning from peacekeeping to warfighting and back again.

Post-Conflict:

- The commander's long-term focus must remain on setting the conditions for the transition to post-conflict operations.

- The Objective Force velocity accelerates these operations.
- Planning must be done as a parallel activity during deployment and campaign execution (simultaneous versus sequential).
- Objective Force soldiers should perceive transition/peace operations as combat-ready tasks, which are just as valuable to achieving vital national interests as other warfighting tasks.

Battle Command, Leader Development, and Training

Wargame experience confirms that fielding a combat-effective Objective Force will depend, in the final analysis, on the capability of soldiers and leaders to exploit the full potential of the advanced technologies with which they are enabled. In turn, this urges a top-to-bottom review of the accession, education, training, and assignment of soldiers and leaders as an integral part of Objective Force development.

- Transforming our institutional leader development and training programs is required to maximize the potential of the Objective Force.
- Changes implicit in the Objective Force operational and organizational concepts require a fundamental paradigm shift of how to select, educate, train, and assign leaders at all levels.
- Transforming the culture of The Army to provide an environment where leaders have more freedom to grow and be innovative.

Economy of Force

Objective

Surprise

Offense

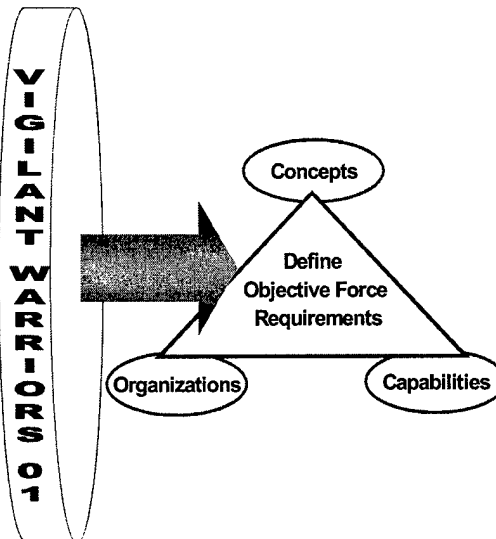
Maneuver

Simplicity

Mass

Security

Unity of Command



Principles of War

The wargame examined the utility of the Objective Force operational and organizational concepts through the lens of the Principles of War. It also examined the application of the principles in the scenario's operations.

The Objective Force significantly enhances The Army's ability, using the Principles of War, to conduct decisive operations across the full spectrum of conflict. The Objective Force concepts support the application of the Principles of War.

The future operational environment and complexities of future joint and combined operations in an expanded, noncontiguous battlespace suggest that the principles of simplicity, security, surprise, and unity of command may be increasing challenges for future joint force employment.

Issues Requiring Additional Study

The initial review of wargame results suggests additional analysis in the following areas:

- **Assured Access.** Expanded analysis of the anti-access/limited access threat and its operational implications.
- **Echelonment.** Ground combat formations, functional and organizational relationships with joint and Objective Force echelons.
- **Decisive Land Combat.** Assess Objective Force concepts, capabilities, technology, and lethality requirements for full spectrum operations, and sustained land combat.
- **Strategic and Intra-Theater Lift.** In conjunction with the other services, develop formal mission need statements for strategic high-speed, shallow-draft sealift and advanced air transport systems, such as the JTR and ATT.

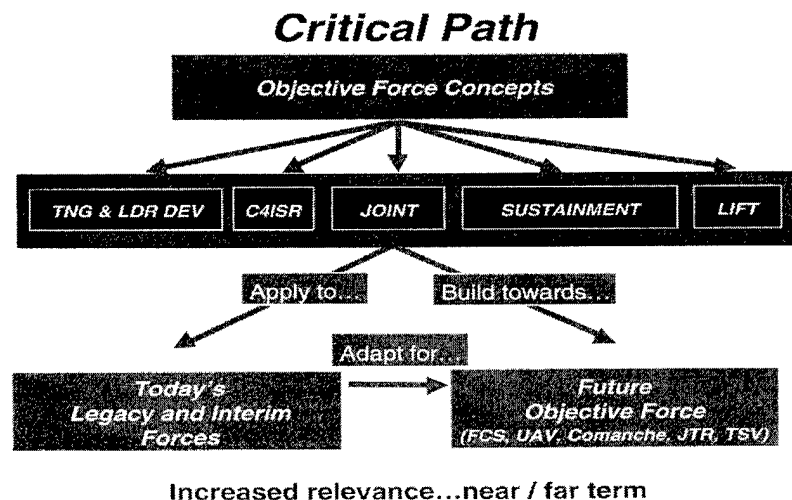
- **C4ISR.** Assess the impact of degraded communications, intelligence, surveillance and reconnaissance on joint and Objective Forces.
- **Sustainment.** Continue analysis of theater sustainment through other Army and joint venues, including land, air, and sea enablers. Ensure the integration of operational and sustainment concepts and organizational designs.
- **Training and Leader Development.** Additional study and analysis is ongoing to determine training and leader development requirements for officers, warrants, NCOs, and soldiers educational systems; to address the needs for transitioning officers from tactical through operational to strategic levels of education and experience; the impacts on Army branches, and development of screening metrics for adaptive leaders.

Critical Path

The development of the Objective Force must follow a critical path incorporating training and leader development, C4ISR, joint capabilities, and sustainment and lift capabilities enhancements as they mature. These operational and organizational concepts and capabilities must be adapted to the Legacy and Interim Forces as well, as we build towards the Objective Force.

Conclusion

No single wargame can address and illuminate all the complexities of future military operations at a time when geopolitical and technological uncertainties perplex the world's best analysts. It is significant, however, that many of the conclusions emerging from Vigilant Warriors 01 reinforce similar insights from last year's Transformation Wargame and, in many cases, from the



three years of Army After Next wargaming that preceded it.

It is this very ability to examine the future in successive iterations and in different strategic and operational settings that lends gaming its illuminating power, and that enables us to conclude with confidence that Army Transformation is on the right azimuth. This year's wargame revealed challenges and requirements yet to be resolved by The Army, our sister services, and other key players in the force modernization effort. Discovering these challenges and requirements, as well as the implications on our armed forces, are the prerequisites to addressing them. That much, and more, Vigilant Warriors 01 clearly accomplished.

The Way Ahead

Next year's wargame will build on the work of the previous two years to refine The Army's understanding of Objective Force concepts and capabilities in an expanded range of operational settings and at a greater level of joint resolution. Paying special attention to areas such as joint task force command and control, organizational integration, and joint C4ISR interdependence, we will continue to refine operational and tactical methods associated with Objective Force employment, within a joint and coalition construct.